Electronic TUBES

17H3

DIODE

FOR TV DAMPING DIODE APPLICATIONS

DESCRIPTION AND RATING

The 17H3 is a miniature heater-cathode type diode intended for service as the damping diode in the horizontal-deflection circuit of compact, 300-milliampere series-string television receivers. The tube features relatively small size and low power requirements. It also has a controlled heater warm-up characteristic as required for use in television receivers that employ series-connected heaters.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	17.5	Volts
Heater Current	0.3 ±6%	Amperes
Heater Warm-up Time*	11	Seconds
Direct Interelectrode Capacitances, approximate†		
Cathode to Plate and Heater	5.5	μμf
Plate to Cathode and Heater	4.0	μμf
Heater to Cathode	2.0	μμf

MECHANICAL

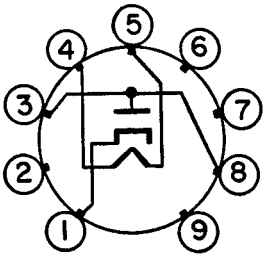
Mounting Position—Any
Envelope—T-6½, Glass
Base—E9-1, Small Button 9-Pin

TV DAMPER SERVICE‡—DESIGN-MAXIMUM VALUES

Peak Inverse Plate Voltage	2000	Volts
Plate Dissipation	3.0	Watts
Steady-State Peak Plate Current	450	Milliamperes
DC Output Current	75	Milliamperes
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with Respect to Cathode		
DC Component	500	Volts
Total DC and Peak	2000	Volts

Design-Maximum Ratings are the limiting values expressed with respect to bogie tubes at which satisfactory tube life can be expected to occur for the types of service for which the tube is rated. Therefore, the equipment designer must establish the circuit design so that initially and throughout equipment life no design-maximum value is exceeded with a bogie tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, and environmental conditions.

BASING DIAGRAM

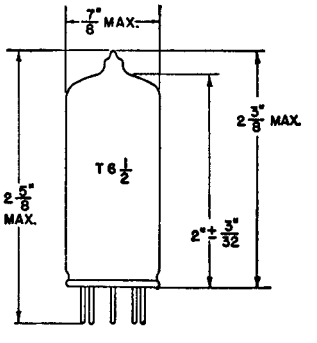


RETMA 9FK

TERMINAL CONNECTIONS

Pin 1—Cathode
Pin 2—No Connection—Do Not Use
Pin 3—Plate
Pin 4—Heater
Pin 5—Heater
Pin 6—No Connection—Do Not Use
Pin 7—No Connection—Do Not Use
Pin 8—Plate
Pin 9—No Connection—Do Not Use

PHYSICAL DIMENSIONS



RETMA 6-3

AVERAGE CHARACTERISTICS

Tube Voltage Drop

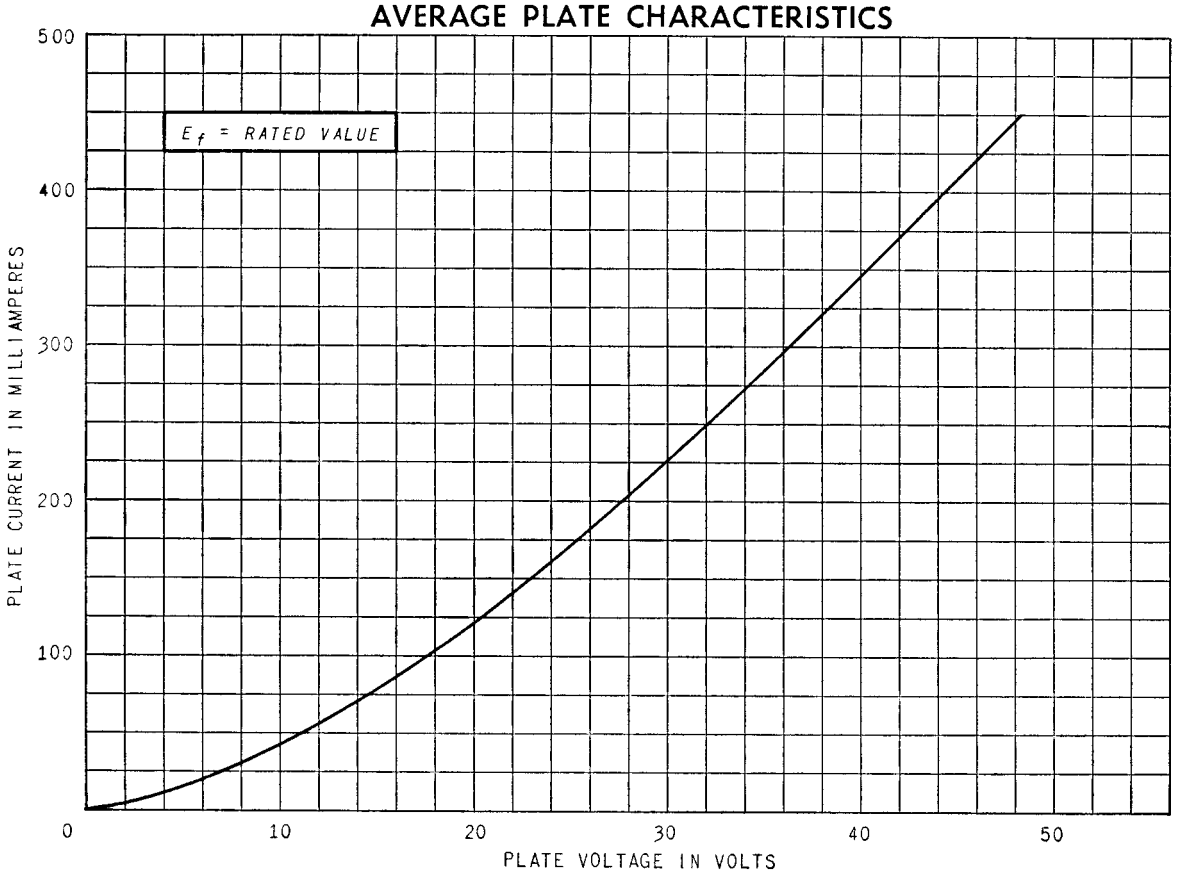
Ib = 140 Milliamperes DC ..... 22 Volts

* The time required for the voltage across the heater to reach 80 percent of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times the rated heater voltage divided by the rated heater current.

† Without external shield.

‡ For operation in a 525-line, 30-frame television system as described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission. The duty cycle of the voltage pulse must not exceed 15 percent of one scanning cycle.

Note: Operation of this tube as a power rectifier is not recommended.



TUBE DEPARTMENT

GENERAL ELECTRIC

Schenectady 5, N. Y.

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